Section I (Amendments to the Claims)

Please amend claim 31 as set out in the following listing of the claims of the application.

1-23. (Cancelled).

24. (Previously presented) A method of dispensing a liquid, the method comprising:

providing a fluid container having an outer container and an inner container, a portion of the inner container occupied by a liquid, a remainder of the inner container occupied by a headspace gas;

evacuating the headspace gas from the inner container;

introducing an amount of empty detect gas into the inner container; and

supplying pressure to the inner container to force liquid from the inner container to a manufacturing process.

25. (Previously presented) The method of claim 24, wherein introducing an amount of empty detect gas into the inner container comprises:

connecting a first block valve, a gas quantity controller, and a second block valve between an empty detect gas supply and the gas passage;

opening the first block valve to allow the empty detect gas to flow from the empty detect gas supply into the gas quantity controller;

closing the first block valve when a measured quantity of empty detect gas has filled the gas quantity controller; and

opening the second block valve to allow the empty detect gas to flow from the gas quantity controller into the interior of the inner container via the gas passage.

26. (Previously presented) The method of claim 25, wherein closing the first block valve when a measured quantity of empty detect gas has filled the gas quantity controller comprises:

connecting a pressure regulator gauge between the empty detect gas supply and the gas quantity controller for regulating the pressure in the gas quantity controller as the empty detect gas is introduced into the gas quantity controller; and

closing the first block valve when the measured quantity of empty detect gas has been introduced into the gas quantity controller based upon the pressure in the gas quantity controller.

27. (Previously presented) The method of claim 24, further comprising:

sensing the empty detect gas when the liquid has been exhausted from the inner container; and

terminating dispensing of the liquid to the manufacturing process when the empty detect gas is sensed.

28. (Previously presented) A system for dispensing liquid to a manufacturing process from a container including an outer container and an inner container, the inner container occupied by the liquid and a headspace gas, the system comprising:

a probe insertable into the inner container, the probe having a flow passage therein;

a gas passage communicating between the interior of the inner container and an exterior of the outer container;

a forcing element adapted to force the headspace gas out of the inner container via the gas passage to a headspace gas drain, and to force liquid out of the inner container through the flow passage in the probe to a manufacturing process; and

an empty detect gas sensor configured to sense an empty detect gas introduced into an interior of the inner container immediately prior to dispensing of the liquid to the manufacturing process.

29. (Previously presented) The system of claim 28, further comprising:

a gas quantity controller;

a first block valve connected between an empty detect gas supply and the gas quantity controller, the first block valve having an open position selectable to allow the empty detect gas to flow from the empty detect gas supply into the gas quantity controller, and a closed position selectable when a measured quantity of empty detect gas has been introduced into the gas quantity controller; and

a second block valve connected between the gas quantity controller and an interior of the inner container, the second block valve having an open position selectable to

allow the empty detect gas to flow from the gas quantity controller to the interior of the inner container, and a closed position selectable when the empty detect gas has been exhausted from the gas quantity controller.

30. (Previously presented) The system of claim 29, further comprising:

a pressure regulator gauge connected between the empty detect gas supply and the gas quantity controller to regulate the pressure in the gas quantity controller as the empty detect gas is introduced into the gas quantity controller such that the first block valve is closed when the measured quantity of empty detect gas has been introduced into the gas quantity controller based upon the pressure in the gas quantity controller.

31. (Currently amended) The system of claim 29, further comprising:

a select valve having ports connected to any of the first and the second block valve, the headspace gas drain, and the interior of the inner container, wherein the select valve allows selectable fluid connection of either the first or the second block valve and the headspace gas drain to the interior of the inner container.

32. (Previously presented) A connector for use in a system including a fluid container having an outer container and an inner container, a portion of the inner container subject to being occupied by a liquid, with a remainder of the inner container subject to being occupied by a headspace gas, the connector comprising:

a gas passage adapted to communicate between an interior of the inner container and an exterior of the outer container, wherein the system is adapted to evacuate the headspace gas from the inner container through the gas passage;

a probe insertable into the inner container and having a flow passage therein, wherein the system is adapted to force liquid from the inner container through the flow passage to a manufacturing process; and

an empty detect gas sensor adapted to sense an empty detect gas introduced into the interior of the inner container immediately prior to dispensing of the liquid to the manufacturing process, wherein the empty detect gas is compositionally different

from the headspace gas, and the empty detect gas sensor is adapted to preferentially detect said empty detect gas as compared to said headspace gas.

33. (Cancelled).

34. (Previously presented) The connector of claim 32, wherein fluid under pressure in the space between the outer container and the inner container forces the headspace gas out of the inner container via the gas passage and liquid out of the inner container through the flow passage to the manufacturing process.

35. (Previously presented) A method for dispensing a liquid from a container including an outer container and an inner container, with a portion of the inner container initially occupied by a liquid, and with a remainder of the inner container initially occupied by a headspace gas, the method comprising:

evacuating the headspace gas from the inner container;

following said evacuating step, introducing an amount of empty detect gas into the inner container; and

compressing the inner container to force liquid from the inner container.

36. (Previously presented) The method of claim 35, wherein supplying pressure to the inner container comprises:

supplying fluid under pressure between the inner container and the outer container to dispense liquid from the inner container.

37. (Previously presented) The method of claim 35, and further comprising

attaching a connector to the fluid container, the connector including a probe having a flow passage therein that is adapted to deliver liquid from the inner container, the connector further including a gas passage communicating between an interior of the inner container and an exterior of the outer container, wherein the gas passage is adapted to evacuate the headspace gas from the inner container.

38. (Previously presented) The method of claim 37, wherein evacuating the headspace gas comprises:

connecting a drain valve between a headspace gas drain and the gas passage;

opening the drain valve to allow the headspace gas to evacuate to the headspace gas drain via the gas passage; and

closing the drain valve when the liquid begins to flow in the gas passage.

39. (Previously presented) The method of claim 38, wherein prior to closing the drain valve, the method further comprises:

supplying fluid under pressure between the inner container and the outer container to force the headspace gas out of the inner container via the gas passage to the headspace gas drain.

40. (Previously presented) The method of claim 38, and further comprising:

connecting a liquid sensor between the gas passage and the headspace gas drain to sense when liquid begins to flow in the gas passage.

41. (Previously presented) The method of claim 35, wherein introducing an amount of empty detect gas into the inner container comprises:

connecting a first block valve, a gas quantity controller, and a second block valve between an empty detect gas supply and the gas passage;

opening the first block valve to allow the empty detect gas to flow from the empty detect gas supply into the gas quantity controller;

closing the first block valve when a measured quantity of empty detect gas has filled the gas quantity controller; and

opening the second block valve to allow the empty detect gas to flow from the gas quantity controller into the interior of the inner container via the gas passage.

42. (Previously presented) The method of claim 41, wherein closing the first block valve when a measured quantity of empty detect gas has filled the gas quantity controller comprises:

connecting a pressure regulator gauge between the empty detect gas supply and the gas quantity controller for regulating the pressure in the gas quantity controller as the empty detect gas is introduced into the gas quantity controller; and

closing the first block valve when the measured quantity of empty detect gas has been introduced into the gas quantity controller based upon the pressure in the gas quantity controller.

43. (Previously presented) The method of claim 35, further comprising:

sensing the empty detect gas when the liquid has been exhausted from the inner container; and

terminating dispensing of the liquid to the manufacturing process when the empty detect gas is sensed.

44. (Previously presented) A system for dispensing liquid to a manufacturing process from a container including an outer container and an inner container, the inner container subject to being occupied by the liquid and a headspace gas, the system comprising:

a connector attachable to the container, the connector including a probe insertable into the inner container and defining a flow passage therein, the connector further including a gas passage in fluid communication with the interior of the inner container, wherein the gas passage is selectively coupleable to a headspace gas drain and a source of empty detect gas;

a forcing element adapted to force the headspace gas out of the inner container via the gas passage to the headspace gas drain, and to force liquid out of the inner container through the flow passage in the probe to the manufacturing process; and

an empty detecting gas sensor adapted to sense an empty detect gas introduced from the source of empty detect gas to the interior of the inner container immediately prior to dispensing of the liquid to the manufacturing process;

wherein the forcing element is distinct from the source of empty detect gas.

45. (Previously presented) The system of claim 44, further comprising:

a drain valve connected between the headspace gas drain and the gas passage, the drain valve having an open position selectable to allow the headspace gas to evacuate to the headspace gas drain via the gas passage, and a closed position selectable when the headspace gas has been exhausted from the interior of the inner container.

46. (Previously presented) The system of claim 45, further comprising:

a liquid sensor connected between the gas passage and the headspace gas drain to sense when liquid begins to flow in the gas passage to indicate that the headspace gas has been exhausted from the interior of the inner container.

47. (Previously presented) The system of claim 45, further comprising:

a gas quantity controller;

a first block valve connected between an empty detect gas supply and the gas quantity controller, the first block valve having an open position selectable to allow the empty detect gas to flow from the empty detect gas supply into the gas quantity controller, and a closed position selectable when a measured quantity of empty detect gas has been introduced into the gas quantity controller; and

a second block valve connected between the gas quantity controller and an interior of the inner container, the second block valve having an open position selectable to allow the empty detect gas to flow from the gas quantity controller to the interior of the inner container, and a closed position selectable when the empty detect gas has been exhausted from the gas quantity controller.

48. (Previously presented) The system of claim 47, further comprising:

a pressure regulator gauge connected between the empty detect gas supply and the gas quantity controller to regulate the pressure in the gas quantity controller as the empty detect gas is introduced into the gas quantity controller such that the first block valve is closed when the measured quantity of empty detect gas has been introduced into the gas quantity controller based upon the pressure in the gas quantity controller.

49. (Previously presented) The system of claim 47, further comprising:

a select valve having ports connected to the block valve, the headspace gas drain, and the interior of the inner container, wherein the select valve allows selectable fluid connection of the block valve and a headspace gas drain to the interior of the inner container.

50. (Previously presented) A liquid handling system comprising:

a container which comprises:

an outer container;

an inner container having an interior; and

wherein a portion of the inner container is occupied by the liquid, and a remainder of the inner container is occupied by a headspace gas;

a connector attachable to the container, the connector including a probe insertable into the inner container and defining a flow passage therein, the connector further including a gas passage in fluid communication with the interior of the inner container, wherein the gas passage is selectively coupleable to a headspace gas drain and a source of empty detect gas;

a fluid source in fluid communication with a space between inner walls of the outer container and the inner container for causing fluid under pressure to flow into the space between the inner walls of the outer container and the inner container to force the headspace gas out of the inner container via the gas passage to a headspace gas drain and to force liquid out of the inner container through the flow passage to the manufacturing process; and

an empty detect gas sensor adapted to sense an empty detect gas introduced into an interior of the inner container immediately prior to dispensing of the liquid to the manufacturing process;

wherein the source of empty detect gas is distinct from the fluid source.

51. (Previously presented) The liquid handling system of claim 50, further comprising:

a liquid sensor connected between the gas passage and the headspace gas drain to sense when liquid begins to flow in the gas passage to indicate that the headspace gas has been exhausted from the interior of the inner container.

52. (Previously presented) The liquid handling system of claim 50, further comprising:

a drain valve connected between the headspace gas drain and the gas passage, the drain valve having an open position selectable to allow the headspace gas to evacuate to the headspace gas drain via the gas passage, and a closed position selectable when the headspace gas has been exhausted from the interior of the inner container.

53. (Previously presented) The method of claim 24, wherein the empty detect gas is compositionally different from the headspace gas.

54. (Previously presented) A system for dispensing liquid to a manufacturing process from a container including an outer container and an inner container, the inner container subject to being occupied by the liquid and a headspace gas, the system comprising:

a connector attachable to the container and including a probe insertable into the inner container, the probe having a flow passage therein, the connector further including a gas passage communicating between the interior of the inner container and an exterior of the outer container;

a forcing element adapted to force the headspace gas out of the inner container via the gas passage to a headspace gas drain, and to force liquid out of the inner container through the flow passage in the probe to the manufacturing process;

a drain valve connected between the headspace gas drain and the gas passage, the drain valve having an open position selectable to allow the headspace gas to evacuate to the headspace gas drain via the gas passage, and a closed position selectable when the headspace gas has been exhausted from the interior of the inner container;

a gas quantity controller;

a first block valve connected between an empty detect gas supply and the gas quantity controller, the first block valve having an open position selectable to allow the empty detect gas to flow from the empty detect gas supply into the gas quantity controller, and a closed position selectable when a measured quantity of empty detect gas has been introduced into the gas quantity controller; and

a second block valve connected between the gas quantity controller and an interior of the inner container, the second block valve having an open position selectable to allow the empty detect gas to flow from the gas quantity controller to the interior of the inner container, and a closed position selectable when the empty detect gas has been exhausted from the gas quantity controller.

55. (Previously presented) The system of claim 54, further comprising a pressure regulator gauge connected between the empty detect gas supply and the gas quantity controller to regulate the pressure in the gas quantity controller as the empty detect gas is introduced into the gas quantity controller such that the first block valve is closed when the measured quantity of empty detect gas has been introduced into the gas quantity controller based upon the pressure in the gas quantity controller.

56. (Previously presented) The method of claim 35, wherein the empty detect gas is compositionally different from the headspace gas.

57. (Previously presented) The system of claim 44, wherein the empty detect gas is compositionally different from the headspace gas.

58. (Previously presented) The system of claim 44, wherein the forcing element comprises a source of pressurized gas.